FOR OFFICIAL USE ONLY

ACCESS DB # /53 845 PLEASE PRINT CLEARLY

Scientific and Technical Information Center

SE	EARCH REQUEST	FORM	
Requester's Full Name: Art Unit: WHT Phone Nu Location (Bldg/Room#): REM (Mai ************************************	mber: 2-0689 Examine ilbox #): REM Results Fo	er # : 19704 Date:	
To ensure an efficient and quality search, pleas	se attach a copy of the cover sheet, cl:	aims, and abstract or fill out the fo	llowing:
Title of Invention: Kreventia	n of Protein A	geregation	
Inventors (please provide full names):	3 & Besta	Solomon	
· · · · .			. <u> </u>
Earliest Priority Date: 12/16(1994		
Search Topic: Please provide a detailed statement of the search elected species or structures, keywords, synonyn Define any terms that may have a special meani	ns, acronyms, and registry numbers, and ing. Give examples or relevant citation	is, authors, etc., if known.	y by the inventori
For Sequence Searches Only Please include appropriate serial number.	all pertinent information (parent, child	d, divisional, or issued patent numb	ers) along with the
uppropriate serial number.		•	
Lifi	gation (Seach	
		Ē.	
		5	
		:	3 B
			•
		1	
		•	
		•	
		·	
************	**************************************	**************************************	icable
STAFF USE ONLY Searcher: Noble	NA Sequence (#)	STN	_Dialog
Searcher Phone #:	AA Sequence (#)	V13 Questel/Orbit	Lexis/Nexis
Searcher Location:	Structure (#)	Westlaw	_ WWW/Internet
Date Searcher Picked Up:	Bibliographic	In-house sequence system	ns
Date Completed: 5/11/05	Litigation	CommercialOligomer	Score/Length Encode/Transl
Searcher Prep & Review Time:	Fulltext	Other (specify)	

Nichols 09/441140

?file pluspat

QUESTEL

Selected file: PLUSPAT

PLUSPAT - (c) Questel-Orbit, All Rights Reserved. Comprehensive Worldwide Patents database New Patent Citation Commands & FAM Citation Report - see INFO PATCITE Announcing enhanced searchability of Relevancy Codes in Search Reports for EP, WO and FR patents. For more details see below and on QO website -To retrieve set of high relevancy X coded cited patents, use xctx=yes -To extract cited patents with only high relevancy code, use mem/xctx Last update of file: 2005/05/11 (YYYY/MM/DD) 2005-18/UP (last update)

Search statement

?us5688651/pn

** SS 1: Results 1

Search statement

?prt full legalall max

- 1/1 PLUSPAT (C) QUESTEL-ORBIT
- US5688651 A 19971118 [US5688651]
- (A) Prevention of protein aggregation (A) UNIV RAMOT (IL) ΤI
- PAO RAMOT University Authority For Applied Research and Development Ltd.,
- Tel Aviv [IL]
- (A) SOLOMON BEKA (IL)
- AP US35878694 19941216 [1994US-0358786] PR US35878694 19941216 [1994US-0358786]
- (A) A61K-039/395 C07K-016/00 G01N-033/48 G01N-033/53
- C07K 016/18
 - C07K-016/40
 - G01N-033/53
- ICO M07K-201/00 M07K-203/00
 - M07K 207/00

 - M07K-209/00
 - M07K-215/00 M07K-219/00
- PCL ORIGINAL (0): 435007100; CROSS-REFERENCE (X): 424130100 436063000 530388100
- DT Corresponding document
- CT US4946778; WO9311248; WO9313200; WO9311248; WO9408012; WO9411513
 - Carlson et al, "Antibody assisted protein refolding" Bio/Technology, vol., pp. 86-91, Jan. 1992.

Tomiyama et al, "Rifampicin prevents the aggregation of neurotoxicity of amyloid B protein in vitro", Biochem. and Biophys. Res. Comm., vol. 204, No. 1, pp. 76-83, Oct. 14, 1994.

Craig, E.A. "Caperones: Helpers along the pathways to protein folding" Science, vol. 260, pp. 1902-1903, Jun. 25, 1993.

Agard, D.A. "To fold or not to fold . . . " Science, vol. 260, pp. 1903-1904, Jun. 25, 1993.

Banks and Kastin, "Peptide binding in blood and passage across the blood-brain barrier" in Blood Binding and Drug Transfer, editors Tillement and Eckert, pp. 223-241, (1992).

Blond and Goldberg, "Partly native epitopes are already present on early intermediates in the folding of tryptophan synthase" PNAS (USA), 84:1147-1151 (1987).

Brems, "Solubility of different folding conformers of bovine growth hormone" Biochemistry 27:4541-4545 (1988).

Burdick et al., "Assembly and aggregation properties of synthetic Alzheimer's A4/ β amyloid peptide analogs" J. Biol Chem. 267, 546-554 (1992).

Bush et al., "Rapid induction of alzheimer AB amyloid formation by zinc" Science 265:1465-1467 (1994).

Carlson and Yarmush, "Antibody assisted protein refolding" Bio/Technology, 10:86-91 (1992).

Chothia and Janin, "Principles of protein-protein recognition" Nature 256:705-708 (1975).

De Young et al., "Aggregation of globular proteins" Accounts of Chemical Research, 26:614-620 (1993).

Duenas et al., "Intra-and extracellular expression of an scFv antibody . . . "BioTechniques, 16:476-483 (1994).

Ellis and Van Der Viies, "Molecular chaperones" Annu. Rev. Biochem. 60:321-347 (1991).

Fraser et al., "Effects of sulfate ions on alzheimer $\beta/A4$ peptide assemblies . . . " J. Neurochem. 59:1531-1540 (1992).

Frederickson, Int. Rev. Neuorobiol. 31:145-238, (1989).

Gething and Sambrook, "Protein folding in the cell" Nature 355:33-45 (1992).

Goldberg, "Investigating protein conformation, dynámics and folding with monoclonal antibodies" TIBS 16:358-362 (1991).

Goloubinoff et al., "Reconstitution of active dimeric ribulose bisphosphate carboxylase . . . " Nature, 342:884-889 (1989).

Haass and Selkoe, "Cellular Processing of β -amyloid precursor protein and the genesis of amyloid β -peptide" Cell, 75:1039-1042 (1993).

Haber, "Engineered antibodies as pharmacological tools" Immunological Reviews, 130:189-212 (1992).

Harlow and Lane, in Antibodies, a Laboratory Manual, Chapter 6, Production of Monoclonal Antibodies, Cold Spring Harbor Laboratory, (1988).

Hattori et al., "Unfolding/refolding studies on bovine β -Lactoglobulin with monoclonal antibodies as probes" J. Biol. Chem. 268:22414-22419 (1993).

Hendrick and Hartl, "Molecular chaperone functions of heat-shock proteins" Annu. Rev. Biochem, 62:349-394 (1993).

Jaenicke, "Protein folding: local structures, domains, subunits, and assebmlies" Biotechemistry, 30:3147-3161 (1991).

Mantyh et al., "Aluminum, iron, and zinc ions promote aggregation of physiological concentrations . . . " J. Neurochem. 61:1171-1173 (1993).

Marasco et al., "Design, intracellular expression and activity of a human anti-human immunodeficiency . . . "Proc. Natl. Acad. Sci. USA, 90:7889-7893 (Aug., 1993).

McLachlan et al., "Intramuscular desferrioxamine in patients with Alzheimer's disease" Lancet, 337:1304-1308 (1991).

Milstein, "Monoclonal antibodies" Scientific American, pp. 56-64 (Oct., 1980).

Pluckthun, "Mono-and bivalent antibody fragments produced in Escherichia coli: engineering, folding and antigen binding" Immunol. Reviews, 130:151-188 (1992).

Rao et al., "Chaperone-like activity of α -crystallin" J. Biol. Chem. 269:13266-13272 (1994).

Silen and Agard, "The α-lytic protease pro-region does not require a physical linkage to activate . . . "Nature, 341:462-464 (1989).

Solomon et al., "Interaction of carboxypeptidase with a monoclonal antibodies" Molec. Immunol., 21:1-12 (1984).

Solomon et al., "Localization of a highly immunogenic region of Carboxypeptidase A..." Biochemistry, 28:1235-1241 (1989).

Solomon and Balas, "Thermostabilization of Carboxypeptidase A by interaction with its monoclonal antibodies" Biotechnol. Appl. Biochem., 14:202-211 (1991).

Solomon and Schwartz, "Chaperone-like effect of monoclonal antibodies on refolding of heat denatured Carboxypeptidase A" J. Molec. Recog. (in press), (1995).

Stern et al., "Antibodies to the β -amyloid peptide cross-react with conformational epitopes in human fibrinogen . . . " FEBS Lett. 264:43-47, (1990).

Talafous et al., "Solution structure of residues 1-28 of the amyloid β -peptide" Biochemistry, 33:7788-7796 (1994).

Travis, "Putting antibodies to work inside cells" Science, 261:1114 (1993).

Tuomanen et al., "Reversible opening of the blood-brain barrier by anti-bacterial antibodies" Proc. Natl. Acad. Sci. USA, 90:7824-7828 (Aug., 1993).

Vallee and Riordan, Ann. Rev. Biochem. 38:733-794 (1969).

Vallee and Galdes, Advances in Enzymology and Related Areas of Molecular Biology, 56:282-430, (1984).

Vandenbroeck et al., "Refolding and single-step purification of porcine interferon- γ ..." Eur. J. Biochem., 215;481-486 (1993).

Welch, "How cells respond to stress" Scientific American, pp. 56-64 (May, 1993).

Wetzel, "Mutations and off-pathway aggregation of proteins" TIBTECH, 12:193-198 (1994).

Wetzel et al., Bio/Technol., 9:731-737 (1991).

Winther et al., "Refolding of a carboxypeptidase Y folding intermediate in vitro by low-affinity binding of the proregion" J. Biol. Chem., 269:22007-22013 (1994).

Wisniewski et al., "Apolipoprotein E: binding to soluble alzheimer's β -amyloid" Biochem. Biphys. Res. Commun., 192:359-365 (1993).

Yankner et al., "Neurotrophic and neurotoxic effects of amyloid β protein: reversal by tachykinin neuropeptides" Science 250:279-282 (1990).

Young et al., "Amylin and syndrome-X" Drug Development Research, 32:90-99 (1994).

Zhu et al., Nature 339:483-484 (1989).

Ellis et al, "The molecular chaperone concept" Biochem. Soc. Symp. 55:145-153.

Fraser et al., "Biochemistry of alzheimer's disease amyloid plaques" Clin Biochem., 26:339-349 (1993).

Friguet et al., "A convenient enzyme-linked immunosorbent assay for testing whether monoclonal antibodies . . . " J. of Immuno. Methods, 60:351-358 (1983).

Mendoza et al., "Chaperonin cpn60 from Escherichia coli protects the " J. Bio. Chem., vol. 265, No. mitochondrial enzyme rhodanese . . . 25:17631-17634 (1992).

Shinde et al., "Folding pathway mediated by an intramolecular chaperone" Proc. Natl. Acad. Sci. USA, 90:6924-6928 (Aug., 1993).

Wisniewski and Frangione, "Apolipoprotein E: a pathological chaperone protein in patients with cerebral and systemic amyloid" Neuroscience Letters, 135:235-238 (1992).

Vallee, "Active center of carboxypeptidase A" Federation Proceedings, vol. 23, Part I, Jan.-Feb. (1964).

STG - (A) United States patent AB - A method of selecting anti-aggregation molecules with chaperone-like activity that have characteristics including binding to a native target molecule epitope with a high binding constant and are non-inhibitory to the biological activity of the target molecule. The method molecules denaturating a target molecule in the presence of presumptative antiaggregation molecules to prevent the target molecules from self-or induced-aggregation. The nonaggregated target molecule coupled to the anti-aggregation molecule is then tested for bioactivity.

1/1 LGST - (C) EPO

PN - US5688651 A 19971118 [US5688651] AP - US35878694 19941216 [1994US-0358786]

ACT - 19941216 US/AS02-A ASSIGNMENT OF ASSIGNOR'S INTEREST

OWNER: RAMOT UNIVERSITY AUTHORITY FOR APPLIED RESEARCH &; EFFECTIVE

DATE: 19941207

19941216 US/AS02-A

ASSIGNMENT OF ASSIGNOR'S INTEREST

OWNER: SOLOMON, BEKA; EFFECTIVE DATE: 19941207

20000208 US/RF-A

REISSUE APPLICATION FILED

EFFECTIVE DATE: 19991116

UP - 2003-22

1/1 CRXX - (C) CLAIMS/RRX

AN - 2908016

PN - 5, 688, 651 A 19971118 [US5688651]

PA - Ramot Univ Authority for Applied Res and Ind Dev Ltd IL

PT - C (Chemical)

ACT - 19991116 REISSUE REQUESTED Issue Date of O.G.: 20000208 Reissue Request Number: 09/441140

Examination Group responsible for Reissue process: 1642

UP - 2000-06 UACT- 2000-02-08 Search statement 2

Landaharian Count into	Order Documents Available Courts Lexis.com Sign Out Help			
LexisNexis [*] CourtLink [*]	Welcom	e Noble Jarrell!		
My CourtLink Search Dockets & Docum	ents 🌋 Track	Alert Strategic	Profiles My Account	
Search > Patent Search				
			Cancel	
Patent Number Search				
Enter a Patent Number or Select a Distr	rict Court			
 Entering a patent number displays all case Selecting a Court displays all patent-relate 				
Enter a Patent Number [info] 5,688,651	OR	Select a District Court Select		
Sele These codes will appear on your invoice next to charges		nnage Previous Codes is search. The values will be p	oreserved until changed,	
Client/Project Notes:				
			Cancel	
	******************	··········	···········	

Pricing Privacy Master Services Agreement

 $\underline{\text{Copyright } @} \text{ 2005 LexisNexis, a division of Reed Elsevier Inc. All rights reserved.}$

LexisNexis CourtLink

Order Documents | Available Courts | Lexis.com | Sign Out | Help

Welcome Noble Jarrell!

My CourtLink Search Dockets & Documents Track Alert Strategic Profiles My Account



Search > Patent Search > Searching

Patent Search - Number: 5,688,651

No cases containing this patent number were four

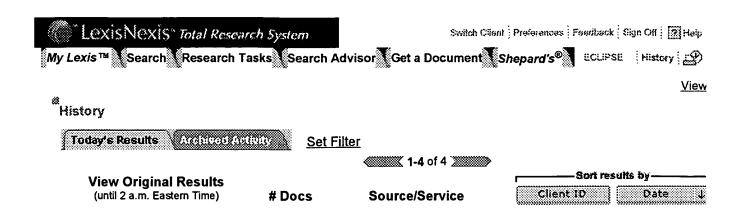
Return to Search

(Charges for search still apply)

Privacy

Master Services Agreement

Copyright © 2005 LexisNexis, a division of Reed Elsevier Inc. All rights reserved.



1 of 1 DOCUMENT

UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT

5688651

Link to Claims Section

November 18, 1997

Prevention of protein aggregation

REISSUE: Reissue Application filed Nov. 16, 1999 (O.G. Feb. 8, 2000) Ex. Gp.: 1642; Re. S.N. 09/441,140, (O.G.

February 8, 2000)

APPL-NO: 358786 (08)

FILED-DATE: December 16, 1994

GRANTED-DATE: November 18, 1997

ASSIGNEE-AT-ISSUE: RAMOT University Authority For Applied Research and Development Ltd., Tel Aviv, Israel (IL), 03

ASSIGNEE-AFTER-ISSUE: December 16, 1994 - ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS)., RAMOT UNIVERSITY AUTHORITY FOR APPLIED RESEARCH & INDUSTRIAL DEVELOPMENT LTD. 32 H. LEVANON STREET P. O. BOX 39296 TEL AVIV, ISRAEL 61392, Reel and Frame Number: 07283/0327

<u>5688651 or</u> <u>5,688,651</u>	2	News, All (English, Full Text)	05/11/2005 11:15:41	Re-Run/Edit
5688651 or 5,688,651	0	Patent, Trademark & Copyright Periodicals, Combined	05/11/2005 11:14:54	Re-Run/Edit
5688651 or 5,688,651	0	Patent Cases from Federal Courts and Administrative Materials	05/11/2005 11:14:36	Re-Run/Edit
patno is 5688651	1	Utility, Design and Plant Patents	05/11/2005 11:12:37	Re-Run/Edit

My Lexis ™ | Search | Research Tasks | Search Advisor | Get a Document | Shepard's ® Edipse ™ | History | Delivery Manager | Switch Client | Preferences | Feedback | Sign Off | Help About LexisNexis | Terms and Conditions

Copyright © 2005 LexisNexis, a division of Reed Elsevier Inc. All rights reserved.

This Page is Inserted by IFW Indexing and Scanning Operations and is not part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the	he items	chec	ked:
BLACK BORDERS	٠.,		
☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES	· ·		
☐ FADED TEXT OR DRAWING			
☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING			
☐ SKEWED/SLANTED IMAGES	•		
COLOR OR BLACK AND WHITE PHOTOGRAPHS		•	
GRAY SCALE DOCUMENTS			
☐ LINES OR MARKS ON ORIGINAL DOCUMENT		• .	
☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE PO	OR QUAL	JTY	

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.